Extension Service
West Virginia University

Disaster and Emergency Management Resources

Salvaging Wet Feed and Grain

Wet feed and grain will begin to heat and mold very quickly, leading to spoilage as well as the possibility of spontaneous combustion. As soon as possible, you should remove dry portions of grain and store them separately. Dry bales of hay should be removed and restacked in a dry location, because capillary action will draw water up into the stack. Until tested, wet feeds should be presumed harmful to animals. They may contain contaminants from floodwaters, as well as mold spores that sometimes produce dangerous toxins.

Flooded Grain

- The surest way to save wet grain is to get it to a dryer quickly, if possible. If the grain depth can be kept below 6 feet, use a natural-air bin drying system with a perforated floor and a high-capacity drying fan. Supplemental heat should be used only during periods of high humidity. Do not raise the air temperature more than 15 degrees.
- If a dryer is not available, spread the grain in as dry a place as possible. Don't pile it any higher than 6 inches. Stir it daily to prevent overheating and to speed drying. Watch for and remove molded grains.
- Wet grain can be ensiled if it is intended for feed and the moisture content ranges between 25 and 35 percent. If using a conventional silo, see your county Extension agent about treating the grain with proprionic acid to prevent mold.
- If it is not possible to dry grain artificially, try to find a local market for it. Usable flood-damaged grain must be sold at a salvage price, possibly to a large livestock feeder who can use it before it spoils. Grain should be kept in airtight storage to prevent spoilage.
- Wet seed grain probably will not be suitable for seed because wetness causes the seed to germinate. Subsequent drying would stop germination and likely kill the seed or reduce its viability. Do not feed seed grain to livestock because it may contain toxic additives.
- Flooded silage likewise will be a loss. Its waterlogged state will hurt feed value, as will any contaminants from the water. Like hay, it might be spread on fields as a fertilizer.
- Do not feed flood-damaged grains until they are tested for *mycotoxins,* toxic substances produced by fungi. Ask your county Extension agent for locations of testing laboratories. Even if the feed is deemed safe to use, watch animals carefully for signs of illness.

- Mixed feeds, grains, and roughages that have heated or spoiled will have little nutritive value for livestock, depending on the extent of the damage.
- Do not feed heated, molded, or sour feeds or moldy legume hays (such as alfalfa or clover) to any livestock. Reduced performance, sickness, abortion, or death may occur.

Flooded Ear Corn

- Dry the corn if facilities and equipment are available. Remove corn from crib, because mud and debris washed into the crib may make drying difficult or impossible. Then place the ear corn over a drying tunnel and force air through the corn with a fan.
- Shell the corn if shelling equipment is available.

Flooded Hay

- Flooded hay should be disposed of or used on fields as a fertilizer. It is probably unsafe for animals and not worth the time and expense of drying.
- Because of hay's tendency to heat and mold quickly, it should be spread out to aerate as soon as possible and turned often. Hay bales that are 30 percent to 40 percent wet pose the greatest risk of fire. Check hay storage often for pungent odors, hot damp areas on the stack, emission of water vapors, and other signs of heating.
- To check a stack's temperature for fire risk, drive a sharp pointed pipe into the hay, lower a thermometer inside the pipe, and leave it there for about 20 minutes. At 150 degrees F., the hay is approaching the danger zone. At 170 degrees F., hot spots or fire pockets are possible. Have the fire department on standby.
- If you must replace conventional roughage feeds with grain because of flooding, consider fibrous grains such as oats, barley, ground ear corn, or one of the high-fiber byproducts such as brewers grains, corn gluten feed, or soy hulls.
- Continue to feed hay or straw unless you have had experience with high grain feeding. You must maintain a minimum amount of forage in cattle diets. Check with your nutritionist or county Extension agent for guidelines.
- Spread any major changes in a feeding program over a period of several days. Observe animals carefully during the transition.

Adapted from resource material developed by the University of Florida Extension Service entitled "The Disaster Handbook"